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Miyake et al.

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(54) **POSITIVE TYPE PHOTOSENSITIVE
IMAGE-FORMING MATERIAL FOR USE
WITH AN INFRARED LASER**

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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(51) Int. Cl.⁷ **G03C 1/52**

(52) U.S. Cl. **430/192; 430/156; 430/270.1; 430/281.1; 430/905; 430/944**

(58) Field of Search **430/156, 270.1, 430/271.1, 273.1, 281.1, 905, 944**

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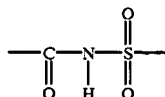
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(57) ABSTRACT

A positive type photosensitive image-forming material for use with an infrared laser is provided. The material includes a substrate, a layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, not less than 10% by mol of at least one of the following monomers (a-1) to (a-3), wherein (a-1) is a monomer having in the molecule a sulfonamide group wherein at least one hydrogen atom is linked to a nitrogen atom, (a-2) is a monomer having in the molecule an active imino group represented by the following general formula (I):

(I)



and (a-3) is a monomer selected from acrylamide, methacrylamide, acrylate, methacrylate and hydroxystyrene, which respectively have a phenolic hydroxyl group; and a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group. The layer (A) and the layer (B) are laminated on the substrate in that order. At least the layer (B) contains a compound which generates heat upon absorbing light. The image-forming material has excellent stability of sensitivity with regard to concentration of a developing solution, i.e., has excellent development latitude.

20 Claims, 1 Drawing Sheet